REMARKS

This supplements the Amendment filed October 21, 2003 in response to the Office Action of September 24, 2003. In that Office Action, claims 1-6 and 8 were rejected based in part on Eklund. By this Amendment, additional arguments are presented traversing the above rejection and further distinguishing the present invention as claimed over the Eklund reference.

Claim 1, as amended in the October 21st Amendment, recites:

"In a soft tissue paper machine having an essentially impermeable transfer belt for conducting a soft tissue web through a shoe press nip in the press section of the paper machine, and from the shoe press nip directly to a Yankee cylinder in the dryer section of the paper machine in a closed draw, which Yankee cylinder forms, together with a transfer means, a transfer nip transferring the soft tissue web from the transfer belt to the Yankee cylinder,

the transfer belt having a carrier and an elastically compressible polymer layer on its side facing the paper web, the polymer layer having a hardness between 50 and 97 Shore A and having a web-contacting surface which has a pressure-sensitive resettable degree of roughness, the web-contacting surface having a degree of roughness in a non-compressed state of Rz = 2-80 *m, measured according to ISO 4287, Part I, and a lower degree of roughness of Rz = 0-20 *m when the polymer layer is compressed by a linear load of 20-220 kN/m applied to the essentially impermeable transfer belt as measured in a non-extended press nip,

wherein the transfer of said soft tissue web from said shoe press nip directly to the Yankee cylinder is improved due to said transfer belt's web-contacting surface having a pressure-sensitive resettable degree of roughness."

Initially, Applicants note that the present invention as claimed is basically a substrate coated on its papermaking surface such that when this essentially impermeable belt is used in a tissue-making machine, the sheet of tissue readily transfers from the belt to the surface of the Yankee dryer at the point of contact with the dryer. This point of contact is in the press nip. In this connection, the surprising result found by Applicants

was that a substrate with a relatively smooth coating formulation similar to that used in Eklund allowed this sheet release to occur.

Eklund teaches both a pressure responsive surface (smooth in the nip, rough outside the nip) and a coating formulation with areas of hydrophilic and hydrophobic nature. It is further noted that just about all structures used as press fabrics, and some like in Eklund and the instant invention, all compress to some degree under load. As is also known, a sheet of paper or tissue/towel in a papermaking process follows either the smoothest of the two surfaces it contacts, or the wettest (water film) surface it contacts. Thus, in a normal tissue machine where a press fabric with a fibrous surface is used, this sheet release readily occurs since the Yankee dryer is far smoother than even the press fabric surface under compression. Note that many of those machines have a suction (vacuum) pressure roll inside the press fabric which forms the nip with the Yankee dryer. Even this extra driving force to keep the sheet firmly attached to the press fabric does **not** deter a smooth transfer to the smooth Yankee dryer surface.

In view of the foregoing, if the structure functioned as Eklund teaches for this tissue apparatus, it would fail on both counts. First, Eklund clearly teaches that his belt is smoothest under pressure; that is in a press nip. Second, Eklund also clearly teaches that this smooth belt now allows the water film to form in nip which is what keeps the sheet firmly in contact with the belt surface. Thus, Eklund allows sheet release outside a press nip due to increasing surface roughness as the belt expands allowing the water film to break up so that the sheet will release cleanly.

Therefore one can conclude that it is the coating formulation chemistry and process that results in a belt similar to Eklund to function in this apparatus. That is, the surface has a relative surface smoothness less than that of the Yankee dryer surface.

For the reasons discussed above in addition to those previously submitted, claim 1 is respectfully submitted to be patentable over Eklund, as are claims 2-6 and 8 which depend therefrom.

Accordingly, in the light of the Amendment filed October 21, 2003 and the present Amendment, it is believed the instant application now is in condition for allowance. An early notice to this effect is respectfully solicited.

Respectfully submitted,

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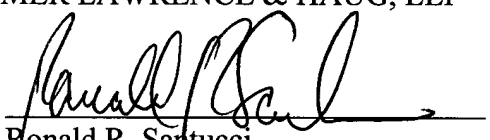
By: 

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